The Visual Editor Project

Flexible GUI Building for Eclipse
The Visual Editor Project: What is it?

- Framework for creating GUI builders
- Extend Eclipse into graphical editing
  - Initially support Swing and SWT
  - But not just for Java
    - C/C++, alternative widget sets
    - Ultra thin clients like R SWT, ULC, Droplets
The Visual Editor Project: What is it?

- Real-time preview of your code's graphical layout
- Edit anything any time, see results reflected everywhere
  - Edit the code
  - Edit the visual layout
  - Edit the Java Beans
- “Context assist on steroids”
## Visual Editor Project: Roadmap

<table>
<thead>
<tr>
<th>Date</th>
<th>Version</th>
<th>Supports</th>
</tr>
</thead>
<tbody>
<tr>
<td>Present</td>
<td>0.5.0</td>
<td>Eclipse 2.1.2, Swing</td>
</tr>
<tr>
<td>Feb, 2004</td>
<td>Integration Builds*</td>
<td>Eclipse 3.0, Swing</td>
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<tr>
<td>2H, 2004</td>
<td>1.0.0</td>
<td>Eclipse 3.x, Swing, SWT</td>
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*Development stream only; a stable build will wait until Eclipse 3.0 stabilizes*
The Visual Editor Project: Architecture

- Based on an EMF model
- All graphics are drawn by a separate process
  - That process communicates with Eclipse using a standardized network protocol
  - Any language (C, C++, Python, etc.) could implement that network protocol
The Visual Editor Project: Architecture
The Visual Editor Project: Architecture

Java component Model (EMF)

 relationships modelled between components

CodeGen

Update from Property Sheet Viewers
GEF edit policies Menu actions…

Update to Property Sheet Viewers

Update from

Update to

Model + Update notification

Model changes update source and vice versa

CodeGen

EMF MetaModel Java core

Graphical viewer uses live image

Live Java object

Target VM

Live GUI positioned off screen

Talks to AST model of the Eclipse Java shared document

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The Visual Editor Project: Demo
The Visual Editor Project: Code Examples

- Available at http://www.eclipse.org/vep